

IN THE DRAWINGS:

The attached sheet of drawings includes changes to FIG. 1. This sheet of drawings replaces the original sheet of drawings including FIGS. 1-2. FIG.1 is amended to show the junction box.

REMARKS

Reconsideration and allowance of the present patent application based on the following remarks are respectfully requested.

By this Amendment, claims 1 and 7 and FIG. 1 are amended and claims 11 and 12 are newly added. Support for the amendments to the claims may be found throughout the original description. No new matter has been added. Accordingly, after entry of this Amendment, claims 1-12 will be pending in the patent application.

In the Office Action, the drawings were objected to under 37 CFR 1.83(a). In connection with the objection, the Examiner indicates that the "junction box" of claims 1 and 7 must be shown in the drawings.

First, claim 1 does not recite such a term. Second, FIG. 1 has been amended to show the junction box, which junction box is part of the wiring integration assemblies 15 as explained at page 4 of the present patent application. A replacement sheet showing the changes to FIG. 1 is enclosed herewith. No new matter has been added.

Accordingly, reconsideration and withdrawal of the objection to the drawings are respectfully requested.

Claims 4 and 7 were rejected under 35 U.S.C. 112, second paragraph. The rejection is respectfully traversed.

In connection with the objection, the Examiner indicates that the claims fail to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Examiner asserts that the term "junction box" is not shown in the drawings nor disclosed in the specification. Respectfully, this is incorrect. The Examiner's attention is directed to page 4 of the original description in which it is stated that "[w]iring integration assemblies 15 comprise junction boxes." Applicant has amended FIG. 1 to illustrate the junction box. Applicant respectfully submits that the claims as they currently stand are clear and definite.

Accordingly, reconsideration and withdrawal of the rejection of claims 4 and 7 under 35 U.S.C. 112, second paragraph, are respectfully requested.

Claims 1-5, 7, 8 and 10 were rejected under 35 U.S.C. § 103(a) based on Norton *et al.* (U.S. Patent No. 4,808,115) (hereinafter "Norton") in view of Olsson. The rejection is respectfully traversed.

As a preliminary matter, the Examiner did not properly identify the Olsson reference in the Office Action. No publication or patent number is specified in the Office Action. The

undersigned contacted the Examiner to inquire about the missing information regarding the Olsson reference. The Examiner indicated that the Olsson reference corresponds to Patent No. 5,949,300.

Claim 1 recites a network bus coupler mountable on a circuit card, the network bus coupler comprising: a housing; electrical isolation circuitry disposed within the housing; and, connectors disposed exterior of the housing and electrically coupled to the electrical isolation circuitry, the connectors configured to be coupled to the circuit card, wherein the network bus coupler is configured to couple a bus to a device connected to the circuit card.

The Examiner concedes at page 4 of the Office Action that the cited portions of Norton do not disclose, teach or suggest an isolation circuitry within the housing. However, there are additional features that are absent in the cited portions of Norton.

For example, the cited portions of Norton do not disclose, teach or suggest a network bus coupler configured to couple a bus to a device connected to the circuit card.

By way of review, the cited portions of Norton disclose a line replaceable module (LRM) (identified by the Office Action as the “network bus coupler” of claim 1) having a connector 50 (identified as the “connectors” of claim 1) joined to a circuit board mounted within a black box. *See* FIG. 3 of Norton. The LRM connector is float mounted within cover plates on the LRM.

However, unlike claim 1, the line replaceable module LRM of the cited portions of Norton is not configured to couple a bus to a device connected to the circuit card. In support of this, the cited portions of Norton disclose that the LRM is merely a circuit card that includes various electrical components and is adapted to be connected to corresponding connector 18 mounted on a mother board. *See* Norton at col. 1, lines 20-32 (“Each line replaceable module, or LRM, performs a control or sensing or recording function and is itself essentially a circuit card or daughter board loaded with various electrical and electronic components.”). In further support of this, FIGS. 1 and 2 of Norton show that the LRM is merely a single element 12 that is inserted into connector 18 of the board 20. As can be seen in FIGS. 1 and 2, element 12 of Norton does not couple a bus line to the mother board 20. The LRM referred to by the Examiner in the cited portions of Norton is not configured to couple a bus to a device connected to the circuit card.

The cited portions of Olsson do not remedy the deficiencies of Norton. The cited portions of Olsson disclose a line coupler having a bus line piece, at least one transformer, two electrically shielded housings and a coupling site. *See* Olsson at col. 2, lines 1-8. However, unlike claim 1, the cited portions of Olsson do not disclose, teach or suggest a

network bus coupler configured to couple a bus to a device connected to the circuit card. Therefore, any proper combination of Norton and Olsson cannot result, in any way, in the invention of claim 1.

Moreover, the Examiner has not provided the requisite analysis as to why one of ordinary skill in the art would combine the elements of Norton and Olsson in the manner that the Examiner has proposed. *See KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350, slip opinion at page 14 (U.S. Apr. 30, 2007) (a determination must be made as to “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit”). Instead, the Examiner has only offered a conclusory statement that it would have been obvious to add the isolation transformers of Olsson to the housing of Norton “because according to Olsson, it is a requirement of MIL-STD-1533.” (*See* page 4 of the Office Action). Specifically, the Examiner justifies his findings, i.e. including the transformers of Olsson into the housing 12 of Norton, based on the fact that the system of Norton “is intended for use in aviation industry.” *See* Office Action at page 4. This is clearly inadequate under the Supreme Court’s KSR decision.

Even assuming, *arguendo*, that the teachings of Olsson could be combined with those of Norton, there exists virtually a multiplicity of ways to incorporate the transformers of Olsson. Specifically, the Examiner has not provided a single piece of reasoning, as required by the Supreme Court, to support his conclusion that one of ordinary skill in the art would have logically included the transformers of Olsson into the housing 12 of Norton, as opposed to, for example, merely connecting them to the outside of the housing 12. The mere fact that Norton discloses a system for use in the aviation industry and that isolation circuitries may be used in connection with Military Standard 1553 and in the aviation industry, in and of itself, is simply insufficient to support the conclusion that one of ordinary skill in the art would have logically combined the elements of Norton and Olsson in the manner that the Examiner has proposed. Applicant is aware that isolation circuitries may be used in connection with Military Standard 1553 and in the aviation industry. In support of this, the cited portions of Olsson and the background of the present invention (*see* page 1 of the present invention) disclose that transformers can be used to isolate circuits in the aviation industry. However, Applicant’s invention of claim 1 is not directed to the use of transformers to isolate circuits “to comply with Military Standard 1553”, as suggested by the Examiner. Rather, the invention of claim 1 is directed to the use of a network bus coupler including such an isolation circuit. Again, the Examiner has not provided a single piece of evidence to support

his determination that the combination of Norton and Olsson would have resulted in the network bus coupler including such an isolation circuitry, as recited in claim 1.

Claims 2-5 are patentable over the cited portions of Norton, Olsson and any combination thereof at least by virtue of their dependency from claim 1 and for the additional features recited therein.

Claim 7 is patentable over the cited portions of Norton, Olsson and any combination thereof for at least the same reasons as provided above for claim 1 and for the features recited therein. For example, claim 7 is patentable over the cited portions of Norton, Olsson and any combination thereof at least because this claim recites a system for coupling a device to a bus, said system comprising a junction box electrically coupled to said device and to said bus; a circuit card disposed in said junction box, said circuit card including a plurality of sockets; and, a modular network bus coupler mountable to said circuit card and configured to couple the bus to a device connected to the circuit card, said bus coupler comprising a housing; electrical isolation circuitry disposed within the housing; and, a plurality of pins disposed exterior of the housing and engageable with at least some of said sockets of said circuit card, at least some of said pins being electrically coupled to said electrical isolation circuitry.

Furthermore, the Examiner has failed to properly identify in the cited portions of Norton and Olsson each and every feature recited in claim 7. For example, it is not clear what the Examiner considers to be the junction box of claim 7 in the cited portions of Norton and Olsson. Nor is it clear what the Examiner considers to be the bus and the device of claim 7 in the cited portions of Norton and Olsson. Respectfully, the Examiner has simply failed to consider some of the features recited in claim 7.

Claims 8 and 10 are patentable over the cited portions of Norton, Olsson and any combination thereof at least by virtue of their dependency from claim 7 and for the additional features recited therein.

Accordingly, reconsideration and withdrawal of the rejection of claims 1-5, 7, 8 and 10 under 35 U.S.C. § 103(a) based on Norton in view of Olsson are respectfully requested.

Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) based on Norton in view of Olsson and Shaffer (U.S. Patent No. 5,841,778). The rejection is respectfully traversed.

Claim 6 is patentable over the cited portions of Norton, Olsson and any combination thereof at least by virtue of its dependency from claim 1 and for the additional features recited therein. Similarly, claim 9 is patentable over the cited portions of Norton, Olsson and

any combination thereof at least by virtue of its dependency from claim 7 and for the additional features recited therein.

The cited portions of Shaffer fail to remedy the deficiencies of Norton and Olsson. For example, the cited portions of Shaffer fail to disclose, teach or suggest electrical isolation circuitry disposed within the housing; and, connectors disposed exterior of the housing and electrically coupled to the electrical isolation circuitry, the connectors configured to be coupled to the circuit card, wherein the network bus coupler is configured to couple a bus to a device connected to the circuit card, as recited in claims 6 and 9. The cited portions of Shaffer merely relate to a system for controlling traffic on a local area network. Thus, any proper combination of Norton, Olsson and Shaffer cannot result in any way in the invention of claims 6 and 9.

Furthermore, Applicant strenuously disagrees with the Examiner's determination that Shaffer inherently discloses a bus terminator disposed in the housing and electrically coupled to a connection disposed exterior of the housing. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied prior art." (See MPEP § 2112 citing Ex Parte Levy, 17 U.S.P.Q. 2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)). What the cited portions of Shaffer do disclose are two terminators 110, 160 that are located at opposite sides of a network bus 170. (See FIG. 1 of Shaffer). However, there are no teachings or suggestions in the cited portions of Shaffer, nor in any of the cited references, that terminators 110, 160 should be disposed inside of the housing of a network bus coupler and electrically coupled to a connector exterior of the housing.

Accordingly, reconsideration and withdrawal of the rejection of claims 6 and 9 under 35 U.S.C. § 103(a) based on Norton in view of Olsson and Shaffer are respectfully requested.

Claims 11 and 12 are newly added to define additional subject matter that is novel and non-obvious. Claims 11 and 12 are patentable for at least the same reasons as provided above for claim 1 and for the features recited therein. For example, with respect to claim 11, none of the cited references disclose, teach or suggest a housing configured to house essentially an electrical isolation circuitry.

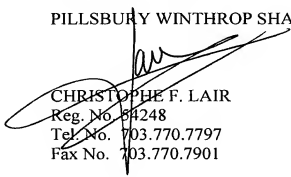
All objections and rejections having been addressed, it is respectfully submitted that the present application is in a condition for allowance and a Notice to that effect is earnestly solicited. If any point remains at issue which the Examiner feels may best be resolved

through a personal or telephone interview, please contact the undersigned at the telephone number below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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